보건학 석사학위논문

Difference of self-rated health level between single-person households and non single-person households in Seoul, Korea

서울시 거주 1인가구와 다인가구의 주관적 건강수준의 차이

2015년 2월

서울대학교 보건대학원

보건학과 보건학전공

차 미 란

Difference of self-rated health level between single-person households and non single-person households in Seoul, Korea

지도교수 조 성 일

이 논문을 보건학 석사학위논문으로 제출함

2014년 10월

서울대학교 보건대학원

보건학과 보건학전공

차 미 란

차미란의 석사학위논문을 인준함

2014년 12월

위 원 장 조 영 태 (인)

부 위 원 장 정 해 원 (인)

위 원 조 성 일 (인)

Abstract

Difference of self-rated health level between single-person households and non single-person households in Seoul, Korea

Cha Miran

Department of Epidemiology

The Graduate School of Public Health

Seoul National University

Introduction : Since 1960s, Korea has achieved such an advancement on economic growth with industrialization and urbanization. As a result, the proportion of single-person households in Seoul has been rising sharply from 4.5% in 1980 to 24.4% in 2010 (Population and Housing Census, Korea National Statistical Office). The majority of the single-person households consist of 20s to 30s under 64-year-old people especially in Seoul. Therefore, the characteristics related with young and middle-aged single-person households could be the key to prepare the future health policies for the single-person households. The aim of this study is to investigate the

difference of self-rated health level between single-person households and non single-person households and figure out the influence factors acting on the difference of self-rated health level between single-person households and non single-person households.

Methods : This study used the Korea Community Health Survey(KCHS) data of 2011. To explore the association between household type and self-rated health level, 8,565 adults aged 19-64 (997 adults who were in the single-person households and 7,568 adults who were in the non single-person households) who lived in Seoul, Korea were randomly selected from each household as a study population. All variables were from the KCHS(the Korea Community Health Survey) questionnaire. To achieve the objectives of this study, descriptive statistics, age stratification, and logistic regression analysis were carried out.

Results : According to the results of univariate logistic regression analysis, the association between household type and self-rated health level was statistically significant(OR : 1.27, CI : 1.03-1.57). And, the odds ratio in the 50-64 age group is also statistically significant(OR : 1.64, CI : 1.21-2.22) among the age groups' results. As to the results of the multiple logistic regression analysis, the subjects who are older, low household income earner, less-educated, economically inactive(unemployed), never drinker and have had experiences of diagnosis with chronic disease and dissatisfaction of medical needs are associated with poor self-rated health level significantly. Moreover, regular participation in leisure activities is

considerably associated with poor self-rated health level. However, frequent contacts with family, friends and neighbors is not statistically significant in the association with poor self-rated health level. In addition, the association between type of household and poor self-rated health level in each age group are not statistically significant after adjusting other factors.

Conclusion : The results of the study reaches the certain conclusion that the powerful factors effects on the difference of self-rated health level between two household types are socio-demographic factors, experiences of disease diagnosis and dissatisfied medical needs and social participation rather than household type. In addition, the factors can decrease effects of the single-person household on the poor self-rated health level in each age group varies considerably. Therefore, if the health policies for the single-person households can be focused on the significant factors in each age group, the policies will be effective in terms of customized single-person households' interventions. As a result, this study can contribute to build the baseline data for the proper health policies targeting single-person households.

.....

Keywords : Single-person household, Self-rated health level, Household type

Student Number : 2013-21875

Contents

Tables

Figures

Ⅰ. Introduction

1. Background

Since 1960s, Korea has achieved such an advancement on economic growth with industrialization and urbanization. In the past, the extended-family structure in Korea was a long tradition, but the traditional extended family system broke up in favor of the nuclear family. On the other hand, many people have been well educated and more women have been moving forward in society. For this reason, celibates and late marriage are increasing in our society, and average age at first marriage is going up and the average birthrate in Korea is also sharply declining. In case of Japan, the total fertility rate have been sharply declined since 1973's oil shock. At the same time, the lifetime celibacy rate, S_{50}(the proportion who have never married by age 50) was dramatically increased(Retherford RD et al., 2005). The proportion of never-married men in their late 40s increased from 2.5% to 17.3% and the proportion of never-married women in their late 40s increased from 4.9% to 7.9%(Atoh M, 2008). Korea is aging society and the proportion of people who are 65 and over years is rapidly increased. In terms of following demographic trends in Japan, people's celibacy, postponement of marriage and child bearing are avoidable in Korea too.

For all those reasons, the number of people in a household has decreased 5.66 in 1955 to 2.76 in 2010 (Population and Housing Census, Korea National Statistical Office) and single-person household are dramatically increasing. According to the results of the Korea Census, the proportion of the single-person households among the whole household has been increasing from 4.8% in 1980 to 23.9% in 2010. Especially, the proportion of the single-person households in Seoul has been rising sharply from 4.5% in 1980 to 24.4% in 2010. According to estimated future household, the proportion of single-person households in Seoul will be 30.1% in 2030. Therefore, single-person household is going to be a mainstream of household type in the future, and the policies, social bases and infrastructures for single-person households need to be improved.

By this time, the research of single-person households has been mainly carried out for senior citizens. When people are getting old, they need support from family or friends or neighbors more than younger people and the elderly who live alone are the most vulnerable population to get support from others. This is the reason why the research is conducted for the elderly who live alone. However, the elderly is a part of the single-person households and the majority of the single-person households consist of 20s to 30s under 64-year-old people especially in Seoul. The late marriage and celibacy is getting widespread, so there are high possibilities that the 20s and the 30s of single-person households remain in single-person

households in the future. Therefore, the characteristics related with young and middle-aged single-person households could be the key to prepare the future health policies for the single-person households. In addition, the pathway of being single-person households is not same between young age and middle age people. For instance, in late 20s and 30s, people tend to have highly-paid, specialized job. Therefore, their self-rated health level could be better than the other household members in the non single-person households or other age group of single-person households. However, for the middle-aged single-person household, they tend to be single-person household because they did not have abilities to get married or otherwise they tend to be widowed, divorced and separated. Their self-rated health level would be worse than that of young single-person households. Therefore, it is important to figure out the overall health factors of young and middle-aged single-person households. And, it can help to make health policies suitable for each age group of the single-person households.

Comparing to the non single-person households, what single-person households mostly lack is support from family living with. Research for the elderly living alone showed that support from family was preferred to support from social service or friends or neighbors by the elderly and support from family can reduce depression(Choi, 2008). In terms of social networks, comparing to those who rarely contacted with family or friend or neighbors, the elderly living alone have more probabilities to be

on good self-rated health level(OR : 1.82, CI : 1.47-2.27) when they contacted with family or friend or neighbors more than once or twice a week(Sun et al., 2007).

Apart from lack of social support, the elderly living alone usually have common socio-demographic factors or health behavior can effects on their overall health status. So this study aims to investigate the characteristics of the single-person households in young and middle-age and explore the influence factors can influence their self-rated health level comparing to the non single-person households.

2. Objectives

The aim of this study is to investigate the difference of self-rated health level between single-person households and non single-person households in Seoul, Korea. Objectives of this study are represented as follows :

To identify the characteristics related socio-demographic factors, health behaviors, medical needs, social network and social participation(social support) of single-person households and non single-households.

To investigate the association between households type and self-rated health level.

To figure out the influence factors acting on the difference of self-rated health level between single-person households and non single-person households.

Ⅱ. Methods

1. Study design and hypotheses

This cross-sectional study aims to investigate the difference of the self-rated health level between single-person households and non single-person households in Seoul, Korea. Each variables were analyzed respectively in order to figure out the factors related with poor self-rated health level.

People can have various characteristics including socio-demographic, health behavior, medical needs and social support factors by household type. These factors can be potential confounders in the association between household type and self-rated health level. To figure out the effects of these factors and the difference of self-rated health level between two household types, several variables need to be controlled. The study model is represented in <figure 1>.

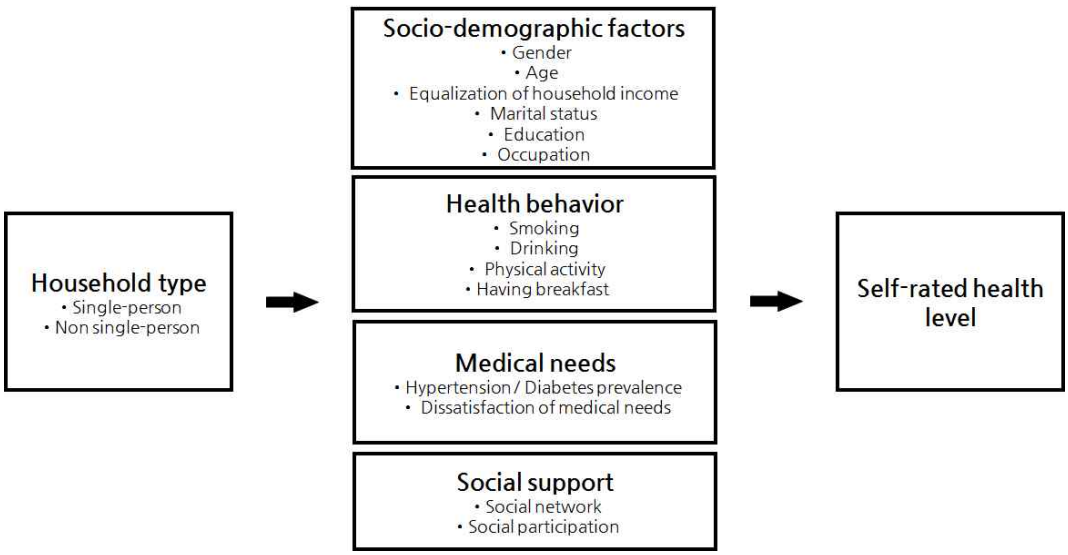
According to the study model in <Figure 1>, developed hypotheses are as below.

1. There is a difference of the self-rated health level between single-person households and non single-person households.

2. According to various factors(socio-demographic, health behavior, medical needs and social support factors), each type of household has different aspects impact on self-rated health level.

3. The single-person households have more risk factors can attribute to the poor self-rated health level comparing to the non single-person households.

4. Living as a single-person household can be a risk factor for the poor self-rated health level.



<Figure 1> Study design model

2. Data collection

This study used the Korea Community Health Survey(KCHS) data of 2011. This survey is a nationwide survey conducted annually by the public health centers in the 253 community districts, the Korea Center for Disease Control(KCDC) and universities throughout Korea since 2008. This survey aims to research community health conditions and produce health statistics to plan evidence-based health policies. The subject of this survey can be any adult who are over the age of 19 years old living in Korea. As the KCHS is a sample survey, the subjects are randomly selected and notified with mails before trained interviewers visit The interviewers conduct the survey with designed questionnaires using computer-assisted personal interview(CAPI) system. This questionnaire covers health behaviors, chronic disease, utilization of medical service, quality of life, social environment and demographics. And, the questionnaire produce indicators related with community health level. These indicators are contained in the questionnaire every 1 or 2 or 4 year cycle contained every 1 or 2 or 4years in terms of their importance. The 2011 KCHS data is the most recently published KCHS data that contains social support indicators so far, so it is used for this study.

For this study, the single-person household refers to a person who lives alone regardless of marital status, namely it includes goose fathers and commuter couples. And, the non single-person

household refers to a family that consists of more than 2 members of household. To explore the association between household type and self-rated health level, the subjects for this study consisted of randomly selected one household member from 8,565 household in the 2011 KCHS data. Finally, 8,565 adults aged 19-64(997 adults who were in the single-person households and 7,568 adults who were in the non single-person households) living in Seoul, Korea were selected as a study population except subjects with missing values.

3. Measures

3.1 Socio-demographic Factors

For socio-demographic factors, gender, age, average household income(per a month), marital status, level of education and occupation type were collected from the CHS data. Considering distribution of subjects' age, age categories were divided into 3 groups(19-29years, 30-49years, 50-64years).

In terms of household income, the equalization of household income was used to increase comparability between two household types. For calculating the equalization of household income, household income was divided with square root of number of people in a household.

Marital status was divided into single(never married), married, widowed, divorced and separated. Occupation types were defined as type 1, 2 and 3. The type 1 group refers professions, administrative, office job. The type 2 group is composed of sales, service, technician, operator, elementary worker, professional soldier and the others(student, housewife and unemployed) were combined in the type 3.

3.2 Self-rated health level

All variables are from the KCHS(the Korea Community Health Survey) questionnaire. Self-rated health level was obtained KCHS questionnaire. The question for self-rated health is 'What do you think about your average health status?' The options were five-point scale that consisted of 'very good', 'good', 'so so', 'bad' and 'very bad'. Subjects who answered 'very good', 'good' and 'so so' were considered to recognize their health level as good self-rated health level, whereas subjects who answered 'bad' and 'very bad' were considered to recognize their health level as poor self-rated health level.

3.3 Household type

Main independent variable is the household type that subjects are living in and it was divided into two types, the single-person household and the non single-person households. The single-person household was defined as one person is living and earning livelihood independently from Korea National Statistical Office. Therefore, anyone can be a single-person household regardless of their marital status, namely goose fathers and commuter couples can be included in the single-person households. On the other hand, the non single-person households refers to a family that consists of more than 2 people.

3.4 Health behavior

As to health behavior variables, smoking variable was divided into current smoker and nonsmoker. For drinking, subjects were categorized as never drinker, moderate drinker and high risk drinker. High risk drinker was defined with drinking frequency and drinking quantity. To be specific, the high risk drinker is defined as a man who had been drinking more than 7 glasses at a time and more than 2 times a week in the past year and a woman who had been drinking more than 5 glasses at a time and more than 2 times a week in the past year.

In terms of physical activity, subjects who did intensive physical activities more than 20 minutes at a time and more than 3 times in the past week or did moderate physical activities more than 30 minutes at a time and more than 5 times in the past week were considered as people who did physical activities. In this study, intense physical activities means that physical or occupational activities cause heavy shortness of breath and make subject feel very hard such as running, climbing, playing soccer or basketball, carrying heavy stuff etc. And, moderate physical activities means that physical or occupational activities cause mild shortness of breath and make subject feel a bit hard such as playing badminton or table tennis, swimming etc. The standard for physical activities acts on subject's own judgment.

Lastly, frequency of having breakfasts variable was divided

into 3 groups(having no breakfast, having breakfasts less than 5 times a week, having breakfasts more than 5 times a week) considering their frequency distribution.

3.5 Medical needs

According to medical needs, subjects who had experienced with diagnosis with hypertension and diabetes were considered as hypertension and diabetes patients respectively. Also, to check the dissatisfaction of medical needs, subjects answered the dichotomous question. The question was that 'In a recent year, haven't you been able to go to hospitals despite you wanted to go?'. Subjects who answered 'yes' were regarded as people who had experiences of dissatisfaction of medical needs.

3.6 Social support (Social network and social participation)

Lastly, in terms of social support factors, social network and social participation variables were used to compare the social support status between single-person households and non single-person households. Frequency of contacts with relatives(including family) who are not living with subjects, friends and neighbors represented the social network. The question was that 'How often do you see or contact with

relatives/friends/neighbors?'. When subjects response 'under once a month' or 'once a month' or '2 or 3 times a month' then that subjects were considered as a one group, and response 'once a week' or '2 or 3 times a week' or 'more than 4 times a week' then that subjects were in another group.

Social participation of subjects was measured by their responses for questions of 4 different types of activities(religious, friendship, leisure and charitable activities). Subjects responded whether they take part in 4 types of activities more than once a month regularly or not.

4. Data analysis

To achieve the objectives of this study, several data analysis were conducted based on the study design. First of all, descriptive statistics was conducted to figure out the frequency of variables and compare the distribution of subjects in each group. And, to demonstrate the association between household type and poor self-rated health level, the univariate logistic regression analysis was carried out. In addition, to explore the difference in the association by age group, age stratification analysis was conducted. Lastly, to find out the risk factors for the poor self-rated health level by household type, the multiple logistic regression analysis was used. Odds ratios were calculated from logistic regression model, it used to figure out the increased risk of the poor self-rated health level for single-person households. All statistical analysis were carried out using SAS 9.4 software.

Ⅲ. Results

1. General characteristics of subjects by household types and age groups

General characteristics of subjects by household type are presented at <Table 1> to <Table 4>. All subjects are 8,565 people and aged 19-64 who were lived in Seoul, Korea. To investigate the difference between single-person households and non single-person households, all subjects are divided into two groups; subjects who were in single-person households are 997 people and subjects who were in non single-person households are 7,568 people. In addition, total subjects are divided into 3 age groups in order to find out the difference of general characteristics in each age group; subjects who were in the 19-29 age group are 1,394 people, subjects who were in the 30-49 age group are 4,732 people and subjects who were in the 50-64 age group are 2,439 people.

As for the socio-demographic factors, in total subjects, the proportion of women in each household is lower in the single-person households(50.9%) comparing to the non single-person households(56.8%). However, the sex ratios in each age group are different. First of all, the single-person households in the 19-29 and 30-49 age group have lower proportions of women comparing to the non single-person households but, the

proportion of women in the single-person households(65.9%) is higher than the non single-person households(62.7%) in the 50-64 age group. Moreover, the sex ratio in single-person households are different in each age group. The age group of 30-49 consists of much more men(56.7%) comparing to the other age group in the single-person households.

According to the household income, in total subjects, the proportion of high household income(more than 3,000,000 won per a month) in each household is higher in the single-person households(26.6%) comparing to the non single-person households(19.1%). However, the proportions of high household income in the single-person households are slightly lower than the non single-person households in the age group of 19-29 and 50-64. Therefore, the single-person households in the age group of 30-49 contribute to the higher proportion of high household income in total single-person households comparing to the non single-person households.

As to marital status, when people are getting older, the proportion of widowed, divorced and separated is getting higher in the single-person households.

In terms of education, the single-person households in age group of 19-29 have higher proportion(63.5%) of well-educated(college≤) and lower proportion(0.4%) of less-educated(≤Middle) comparing to the non single-person

households(47.5%, 0.9%). In the middle age group(30-49), both proportions of well-educated and less-educated in the single-person households are higher comparing to the non single-person households. However, in the 50-64 age group, the single-person households have lower proportion of well-educated(17.9%) and higher proportion of less-educated(51.2%) comparing to the non single-person households(23.1%, 41.8%).

Lastly, as for occupation, the proportion of high level occupation(professions, administrative and office job in type 1) in single-person households(44.5%) is higher than non single-person households(35.5%). However, the distribution of occupation level proportions is different in each age group. In terms of occupation type 1, the single-person households in the 30-49 age group have highest proportion(55.3%) and the single-person households in the 50-64 age group have lowest proportion(15.9%) among age groups. Also, when it comes to occupation type 3(student, housewife and unemployed), the single-person households in the 30-49 age group have lowest proportion(7.4%) and the single-person households in the 50-64 age group have highest proportion(39.3%) among age groups. In addition, in the age group of 19-29, the single-person households have higher proportion of occupation type 1 and lower proportion of occupation type 3 comparing to the non single-person households. Also, in the age group of 30-49, the single-person households consist of more people in the occupation type 1, 2

and much less people in the occupation type 3 comparing to the non single-person households. Finally, in age group of 50-64, the single-person households have slightly higher proportion of the occupation type 2 and a bit lower proportion of the occupation type 1 and 3 comparing to the non single-person households.

Table 1. Socio-demographic factors of subjects by age groups and household types

Variables	Age & Type of household							
	19-29 (N=1394)		30-49 (N=4732)		50-64 (N=2439)		Total (N=8565)	
	S† (n=255)	N‡ (n=1139)	S† (n=490)	N‡ (n=4242)	S† (n=252)	N‡ (n=2187)	S† (n=997)	N‡ (n=7568)
	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)
Gender								
Male	126(49.4)	512(45.0)	278(56.7)	1938(45.7)	86(34.1)	816(37.3)	490(49.2)	3266(43.2)
Female	129(50.6)	627(55.1)	212(43.3)	2304(54.3)	166(65.9)	1371(62.7)	507(50.9)	4302(56.8)
Household Income								
<150	86(33.7)	411(36.1)	79(16.1)	1226(28.9)	148(58.7)	1025(46.9)	313(31.4)	2662(35.2)
150-299	126(49.4)	528(46.4)	226(46.1)	2112(49.8)	67(26.6)	819(37.5)	419(42.0)	3459(45.7)
300≤	43(16.9)	200(17.6)	185(37.8)	904(21.3)	37(14.7)	343(15.7)	265(26.6)	1447(19.1)
Marital Status								
Single	252(98.8)	955(83.9)	386(78.8)	534(12.6)	47(18.7)	30(1.4)	85(68.7)	1519(20.1)
Married	1(0.4)	177(15.5)	14(2.9)	3401(80.2)	11(4.4)	1873(85.6)	26(2.6)	5451(72.0)
Widowed Divorced Separated	2(0.8)	7(0.6)	90(18.4)	307(7.2)	194(77.0)	284(13.0)	286(28.7)	598(7.9)
Education								
≤Middle	1(0.4)	10(0.9)	32(6.5)	207(4.9)	129(51.2)	913(41.8)	162(16.3)	1130(14.9)
High	92(36.1)	588(51.6)	133(27.1)	1476(34.8)	78(31.0)	769(35.2)	303(30.4)	2833(37.4)
College≤	162(63.5)	541(47.5)	325(66.3)	2559(60.3)	45(17.9)	505(23.1)	532(53.4)	3605(47.6)
Occupation§								
type 1	133(52.2)	422(37.1)	271(55.3)	1899(44.8)	40(15.9)	366(16.7)	444(44.5)	2687(35.5)
type 2	59(23.1)	253(22.2)	183(37.4)	1378(32.5)	113(44.8)	915(41.8)	355(35.6)	2546(33.6)
type 3	63(24.7)	464(40.7)	36(7.4)	965(22.8)	99(39.3)	906(41.4)	198(19.9)	2335(30.9)

† : Single-person household

‡ : Non Single-person household

§ : Type 1 is composed of professions, administrative, office job

Type 2 is composed of sales, service, technician, operator, elementary worker, professional soldier

Type 3 is composed of student, housewife and unemployed

As to health behavioral characteristics, the single-person households have generally higher proportion(33.9%) of smokers comparing to the non single-person households(21.7%). And, the single-person households in the age group of 30-49 have much higher proportion(44.9%) of smokers comparing to the other age groups.

As for drinking, the single-person households have also higher proportion of high risk drinkers comparing to the non single-person households. In the age group of 30-49, the difference in proportions of high risk drinkers between single-person households and non single-person households is highest among age groups.

In terms of physical activity, the difference in proportions of people who did intensive and moderate physical activities between single-person households and non single-person households is not so big in general. However, the proportion of people who did intensive and moderate physical activities in the single-person households is higher than non single-person households in the age group of 30-49 and lower in the age group of 50-64.

In addition, the proportion of people who do not have breakfast in the single-person households(31.2%) is higher than non single-person households(15.4%). In the age group of 30-49, the difference in proportions of frequency for having breakfast

between single-person households and non single-person households is the biggest comparing to other age groups. The proportion of people who do not have breakfast in the 30-49 aged single-person households(38.4%) is much higher than the 30-49 aged non single-person households(16.5%). In addition, the proportion of people who have breakfast more than 5 times a week in the single-person households(37.4%) is much less than the non single-person households(64.1%) in the age group of 30-49.

Table 2. Health behavioral characteristics of subjects by age groups and household types

Variables	Age & Type of household							
	19-29 (N=1394)		30-49 (N=4732)		50-64 (N=2439)		Total (N=8565)	
	S† (n=255)	N‡ (n=1139)	S† (n=490)	N‡ (n=4242)	S† (n=252)	N‡ (n=2187)	S† (n=997)	N‡ (n=7568)
	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)
Smoking								
No	178(69.8)	906(79.5)	270(55.1)	3179(74.9)	211(83.7)	1843(84.3)	659(66.1)	5928(78.3)
Yes	77(30.2)	233(20.5)	220(44.9)	1063(25.1)	41(16.3)	344(15.7)	338(33.9)	1640(21.7)
Drinking								
Moderate drinker	201(78.8)	912(80.1)	342(69.8)	3228(76.1)	173(68.7)	1477(67.5)	716(71.8)	5617(74.2)
Never drinker	10(3.9)	66(5.8)	29(5.9)	312(7.4)	44(17.5)	456(20.9)	83(8.3)	834(11.0)
High risk drinker	44(17.3)	161(14.1)	119(24.3)	702(16.6)	35(13.9)	254(11.6)	198(19.9)	1117(14.8)
Physical activity								
No	201(78.8)	906(79.5)	389(79.4)	3527(83.1)	210(83.3)	1709(78.1)	800(80.2)	6142(81.2)
Yes	54(21.2)	233(20.5)	101(20.6)	715(16.9)	42(16.7)	478(21.9)	197(19.8)	1426(18.8)
Breakfast								
No	90(35.3)	299(26.3)	188(38.4)	701(16.5)	33(13.1)	168(7.7)	311(31.2)	1168(15.4)
<5 times a week	77(30.2)	314(27.6)	119(24.3)	821(19.4)	22(8.7)	182(8.3)	218(21.9)	1317(17.4)
5 times a week≤	88(34.5)	526(46.2)	183(37.4)	2720(64.1)	197(78.2)	1837(84.0)	468(46.9)	5083(67.2)

† : Single-person household

‡ : Non Single-person household

In terms of medical needs, the proportions of people who had experienced with diagnosis with hypertension are not so different between single-person households and non single-person households. However, the proportion of people who had experienced with diagnosis with diabetes in the 50-64 aged single-person households(14.7%) is higher than the 50-64 aged non single-person households(10.2%).

According to dissatisfaction in medical needs, the proportion of dissatisfaction in medical needs for the single-person households(18.7%) is higher than non single-person households(15.5%). The difference in the proportions of dissatisfaction in medical needs between single-person households and non single-person households is the biggest in the age group of 50-64 among age groups. It means that the proportions of dissatisfaction in medical needs for the single-person households are increased as people grow older.

As for the proportion of the poor self-rated health level is higher in the single-person households(10.9%) comparing to non single-person households(8.8%). The difference in the proportions of the poor self-rated health level between single-person households and non single-person households is getting bigger with age. Therefore, the proportion of the poor self-rated health level in the 50-64 aged single-person households(25.0%) is the biggest among the single-person households and non single-person households.

Table 3. Medical needs characteristics of subjects by age groups and household types

Variables	Age & Type of household							
	19-29 (N=1394)		30-49 (N=4732)		50-64 (N=2439)		Total (N=8565)	
	S† (n=255)	N‡ (n=1139)	S† (n=490)	N‡ (n=4242)	S† (n=252)	N‡ (n=2187)	S† (n=997)	N‡ (n=7568)
	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)
Hypertension								
No	250(98.0)	1120(98.3)	460(93.9)	3982(93.9)	175(69.4)	1536(70.2)	885(88.8)	6638(87.7)
Yes	5(2.0)	19(1.7)	30(6.1)	260(6.1)	77(30.6)	651(29.8)	112(11.2)	930(12.3)
Diabetes								
No	254(99.6)	1135(99.7)	481(98.2)	4155(98.0)	215(85.3)	1965(89.9)	950(95.3)	7255(95.9)
Yes	1(0.4)	4(0.4)	9(1.8)	87(2.1)	37(14.7)	222(10.2)	47(4.7)	313(4.1)
Dissatisfaction of Medical Needs								
No	215(84.3)	989(86.8)	403(82.2)	3533(83.3)	193(76.6)	1875(85.7)	811(81.3)	6397(84.5)
Yes	40(15.7)	150(13.2)	87(17.8)	709(16.7)	59(23.4)	312(14.3)	186(18.7)	1171(15.5)
Self-rated health								
Good	244(95.7)	1094(96.1)	455(92.9)	3990(94.1)	189(75.0)	1817(83.1)	888(89.1)	6901(91.2)
Poor	11(4.3)	45(4.0)	35(7.1)	252(5.9)	63(25.0)	370(16.9)	109(10.9)	667(8.8)

† : Single-person household

‡ : Non Single-person household

According to the social support characteristics, the proportions of frequent contact with family is higher in the single-person households(52.0%) comparing to the non single-person households(48.7%). This aspect can be searched in the age group of 19-29 as well. In the 19-29 age group, the proportion of frequent contact with family in the single-person households(60.4%) is much higher than the proportion in the non single-person households(35.6%). In the 30-49 and 50-64 age groups, the single-person households tend to have less frequent contact with family comparing to the non single-person households.

In terms of frequent contact with friends, the single-person households(65.5%) seem to have more frequent contact with friends comparing to the non single-person households(53.5%). In each age group, the proportions of frequent contact with friends are higher in the single-person households than the proportions in the non single-person households. The difference in the proportions of frequent contact with friends between single-person households and non single-person households is the biggest in the 30-49 age group. The 30-49 aged single-person households have the biggest proportion of frequent contact with friends(63.5%) among the single-person households and the non single-person households.

As for frequent contact with neighbors, the proportion of frequent contact with neighbors is lower in the single-person

households(24.9%) comparing to the non single-person households(36.4%). Also, in the age group of 19-29 and 30-49, the single-person households tend to have less frequent contact with neighbors comparing to the non single-person household. However, in the age group of 50-64, the single-person households(53.6%) have more frequent contact with neighbors than the non single-person households(49.7%).

As to the social participation, the single-person households show lower proportions of social participation than the non single-person households, except leisure activities. In terms of participation in religious activities, the proportions of religious activities participation is increased with age in both household type. As for the friendship activities participation, it shows also higher proportions in the non single-person households(53.8%) comparing to the single-person households(47.4%). However, the single-person households(47.5%) in the 19-29 age group take part in friendship activities more than the non single-person households(38.1%). In addition, the proportion of the participation in charitable activities have similar pattern with the participation in friendship activities. The proportions of the participation in charitable activities is higher in the non single-person households(9.9%). Except for the 19-29 age group, the single-person households tend not to take part in charitable activities comparing to the non single-person households.

Table 4. Social support characteristics of subjects by age groups and household types

Variables	Age & Type of household							
	19-29 (N=1394)		30-49 (N=4732)		50-64 (N=2439)		Total (N=8565)	
	S† (n=255)	N‡ (n=1139)	S† (n=490)	N‡ (n=4242)	S† (n=252)	N‡ (n=2187)	S† (n=997)	N‡ (n=7568)
	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)
Contact with Family								
<once a week	101(39.6)	734(64.4)	246(50.2)	2016(47.5)	132(52.4)	1133(51.8)	479(48.0)	3883(51.3)
once a week≤	154(60.4)	405(35.6)	244(49.8)	2226(52.5)	120(47.6)	1054(48.2)	518(52.0)	3685(48.7)
Contact with Friends								
<once a week	44(17.3)	231(20.3)	179(36.5)	2229(52.6)	121(48.0)	1061(48.5)	344(34.5)	3521(46.5)
once a week≤	211(82.8)	908(79.7)	311(63.5)	2013(47.5)	131(52.0)	1126(51.5)	653(65.5)	4047(53.5)
Contact with neighbors								
<once a week	229(89.8)	972(85.3)	403(82.2)	2740(64.6)	117(46.4)	1101(50.3)	749(75.1)	4813(63.6)
once a week≤	26(10.2)	167(14.7)	87(17.8)	1502(35.4)	135(53.6)	1086(49.7)	248(24.9)	2755(36.4)
Religious activities								
No	217(85.1)	856(75.2)	385(78.6)	2961(69.8)	157(62.3)	1260(57.6)	759(76.1)	5077(67.1)
Yes	38(14.9)	283(24.9)	105(21.4)	1281(30.2)	95(37.7)	927(42.4)	238(23.9)	2491(32.9)
Friendship activities								
No	134(52.6)	705(61.9)	273(55.7)	2100(49.5)	117(46.4)	689(31.5)	524(52.6)	3494(46.2)
Yes	121(47.5)	434(38.1)	217(44.3)	2142(50.5)	135(53.6)	1498(68.5)	473(47.4)	4074(53.8)
Leisure activities								
No	145(56.9)	720(63.2)	275(56.1)	2570(60.6)	159(63.1)	1397(63.9)	579(58.1)	4687(61.9)
Yes	110(43.1)	419(36.8)	215(43.9)	1672(39.4)	93(36.9)	790(36.1)	418(41.9)	2881(38.1)
charitable activities								
No	238(93.3)	1066(93.6)	452(92.2)	3853(90.8)	229(90.9)	1897(86.7)	919(92.2)	6816(90.1)
Yes	17(6.7)	73(6.4)	38(7.8)	389(9.2)	23(9.1)	290(13.3)	78(7.8)	752(9.9)

† : Single-person household

‡ : Non Single-person household

2. Analysis of related factors for difference of self-rated health level between single-person households and non single-person households

In <Table 5>, the result of univariate logistic regression analysis shows that association between type of household and poor self-rated health level. It is also stratified by age groups to explore the differences in each age group. The crude odds ratio for the total subjects is 1.27(CI : 1.03-1.57). And, the crude odds ratios by age group tend to increase with age. In the age groups of 19-29 and 30-49, the crude odds ratios are 1.10(CI : 0.56 - 2.15) and 1.22(CI : 0.84 - 1.76) respectively. The age group of 50-64 is the only group to show statistically significant($p<0.05$) odds ratio(1.64, CI : 1.21 - 2.22).

To explore potential confounders' effect on the association between household type and poor self-rated health level. The multiple logistic regression analysis was carried out. And, Hosmer & Lemeshow Goodness-of-Fit Test was used to evaluate suitability of the model. <Table 6> indicates the results of multiple logistic regression analysis with selected variables for difference of self-rated health level between single-person households and non single-person households. To investigate the effects of socio-demographic factors, health behavior, medical needs and social support characteristics, the model 1 contains the socio-demographic factors and the model 2 is composed of model

1's factors and health behavioral variables. The model 3 have the variables of the model 2 and occupation, medical needs variables are added in the model 3. Lastly, the model 4 consists of the factors in the model 3 and the social support variables.

First of all, the model 1 contains the socio-demographic factors; gender, age, household income, marital status and education. The occupation variable was excluded from the model 1 and 2 because it dropped the suitability of the model. After adjusting the socio-demographic factors in the model 1, the odds ratio(1.17, CI : 0.90 - 1.53) for the single-person households is not statistically significant and is decreased from the crude odds ratio(1.27, CI : 1.03 - 1.57) in <Table 5>. In the model 1, each factors are statistically significant($p<0.01$) except marital status variables and second household income group(from 1,550,000won per a month to 2,990,000won per a month). Subjects who are women, older, low-income household and less-educated are highly associated with poor self-rated health level.

In terms of the model 2, socio-demographic, health behavior factors were analyzed in multiple logistic regression model except frequency of having breakfasts because of its low effect. The odds ratio(1.17, CI : 0.90-1.53) for the single-person households in the model 2 is decreased comparing to crude odds ratio(1.27, CI : 1.03 - 1.57), but it is same with adjusted odds ratio(1.17, CI : 0.90 - 1.53) in the model 1. Therefore, the added factors like smoking, drinking and physical activity factors in the model 2

are not so strong in the association between household type and poor self-rated health level. The effects of the socio-demographic factors in the model 2 are similar with the effects in the model 1. As for health behavior factors, drinking variable is the only statistically significant factor for the poor self-rated health level. People who have never drunk alcohol in their lifetime are associated with poor self-rated health level considerably comparing to the moderated drinkers.

In addition, the model 3 were analyzed to confirm the effect of medical needs factors for the poor self-rated health level. The odds ratio(1.07, CI : 0.81-1.41) for the single-person households in the model 3 is decreased from the odds ratio(1.17, CI : 0.90-1.53) in the model 2. It indicates that the medical needs factors like hypertension and diabetes diagnosis experiences and dissatisfaction of medical needs have quiet huge effects on the association between household type and poor self-rated health level. After adjusting the occupation and medical needs variables, the odds ratio for female is not statistically significant and the effect of low-income household is decreased. On the other hand, the effects of married people and physical activity are statistically significant($p<0.05$). In terms of the medical needs factors, people who were diagnosed with hypertension and diabetes are strongly associated with the poor self-rated health level. Moreover, people who have experienced with dissatisfaction of medical needs are also associated with poor self-rated health level significantly.

Lastly, the model 4 were analyzed to confirm the effect of social support factors for the association. The odds ratio(1.06, CI : 0.80-1.41) for the single-person households in the model 4 is almost same as the odds ratio in the model 3(1.07, CI : 0.81-1.41) and it is not statistically significant. In terms of social support factors, contact with neighbors variable was excluded from the model 4 because of its low effect and the suitability of the model. The frequency of contact with family and friends is not statistically significant. In addition, the participations of religious, friendship and charitable activities are not significant in the model 4. However, the participation of leisure activities are associated with poor self-rated health level($p<0.01$).

Table 5. Results of logistic regression analysis for difference of self-rated health level between single-person households and non single-person households by age groups

Age	Type of household	Poor self-rated health level			
		OR	95% CI		P-value
Total	Single-person	1.27	1.03	1.57	0.0287**
	Non single-person		1		
19-29	Single-person	1.10	0.56	2.15	0.7897
	Non single-person		1		
30-49	Single-person	1.22	0.84	1.76	0.2916
	Non single-person		1		
50-64	Single-person	1.64	1.21	2.22	0.0016†
	Non single-person		1		

*: p<0.1, **: p<0.05, † : p<0.01

Table 6. Results of multiple logistic regression analysis with selected variables for difference of self-rated health level between single-person households and non single-person households

Variables	Model 1				Model 2				Model 3				Model 4			
	OR	95% CI			OR	95% CI			OR	95% CI			OR	95% CI		
Household																
Single	1.17	0.90	1.53		1.17	0.90	1.53		1.07	0.81	1.41		1.06	0.80	1.41	
Non single		1				1				1				1		
Gender																
Male		1				1				1				1		
Female	1.35	1.14	1.59	†	1.36	1.11	1.66	†	1.16	0.94	1.44		1.14	0.91	1.42	
Age																
19-29		1				1				1				1		
30-49	1.80	1.28	2.54	†	1.74	1.24	2.46	†	1.91	1.34	2.73	†	1.87	1.31	2.67	†
50-64	3.63	2.49	5.30	†	3.44	2.35	5.02	†	2.75	1.85	4.08	†	2.84	1.91	4.24	†
Household Income																
<150	1.58	1.24	2.03	†	1.55	1.21	1.98	†	1.31	1.01	1.69	**	1.21	0.93	1.57	
150-299	0.86	0.67	1.11		0.86	0.67	1.10		0.84	0.65	1.08		0.80	0.62	1.03	*
300≤		1				1				1				1		
Marital Status																
Single		1				1				1				1		
Married	0.82	0.62	1.08		0.83	0.63	1.10		0.72	0.54	0.97	**	0.71	0.53	0.95	**
Widowed Divorced Separated	1.07	0.79	1.45		1.08	0.80	1.47		0.93	0.67	1.28		0.90	0.65	1.24	
Education																
≤Middle	2.48	1.94	3.16	†	2.45	1.92	3.12	†	2.26	1.73	2.96	†	2.13	1.62	2.80	†
High	1.40	1.14	1.71	†	1.40	1.14	1.71	†	1.40	1.13	1.73	†	1.35	1.09	1.68	†
College≤		1				1				1				1		
Occupation§																
type 1										1				1		
type 2									0.85	0.66	1.08		0.83	0.65	1.06	
type 3									1.84	1.45	2.34	†	1.83	1.44	2.33	†
Smoking																
No						1				1				1		
Yes					1.14	0.91	1.44		1.23	0.96	1.56	*	1.20	0.94	1.53	

*: $p<0.1$, **: $p<0.05$, † : $p<0.01$

§ : Type 1 is composed of professions, administrative, office job

Type 2 is composed of sales, service, technician, operator, elementary worker, professional soldier

Type 3 is composed of student, housewife and unemployed

Table 6. (continued)

Variables	Model 1				Model 2				Model 3				Model 4			
	OR	95% CI			OR	95% CI			OR	95% CI			OR	95% CI		
Drinking																
Moderate drinker						1				1				1		
Never drinker					1.47	1.20	1.81	†	1.44	1.15	1.80	†	1.36	1.08	1.71	†
High risk drinker					1.06	0.83	1.35		1.07	0.83	1.38		1.10	0.85	1.42	
Physical activity																
No					1.22	1.00	1.50	*	1.26	1.02	1.56	**	1.14	0.91	1.41	
Yes						1				1				1		
Hypertension																
No										1				1		
Yes									2.15	1.76	2.62	†	2.13	1.74	2.60	†
Diabetes																
No										1				1		
Yes									3.83	2.95	4.98	†	3.85	2.96	5.01	†
Dissatisfaction of Medical Needs																
No										1				1		
Yes									2.74	2.28	3.30	†	2.66	2.21	3.20	†
Contact with Family																
<once a week													0.91	0.77	1.08	
once a week≤														1		
Contact with Friends																
<once a week													1.15	0.97	1.36	
once a week≤														1		
Religious activities																
No													0.96	0.80	1.14	
Yes														1		
Friendship activities																
No													1.13	0.95	1.35	
Yes														1		
Leisure activities																
No													1.43	1.18	1.74	†
Yes														1		
charitable activities																
No													1.14	0.84	1.54	
Yes														1		
Hosmer & Lemeshow Goodness-of-Fit Test (P-value)		0.2100				0.1874				0.1738				0.6205		

*: p<0.1, **: p<0.05, † : p<0.01

3. Analysis of related factors for difference of self-rated health level between single-person households and non single-person households by age groups

To investigate the difference of effects in each age group, the multiple logistic regression analysis with stratified age group was carried out. <Table 7>, <Table 8> and <Table 9> indicate the results of the multiple logistic regression analysis stratified by the age group 19-29, 30-49 and 50-64 respectively.

<Table 7> shows the results of the multiple logistic regression analysis in the 19-29 age group. For the 19-29 age group analysis, marital status, education variables were excluded because these categories(married, widowed, divorced, separated and under middle school) contain low number of frequency. In the model 1, all variables are not statistically significant($p<0.05$). And adjusted odds ratio(1.06, CI : 0.53-2.10) is not so small comparing to the crude odds ratio(1.10, CI : 0.56-2.15). Therefore, socio-demographic factors in the 19-29 age group is not so strong in the association between household type and poor self-rated health level.

In the model 2, the odds ratio(0.99, CI : 0.49-1.99) is decreased comparing to the crude odds ratio(1.10, CI : 0.56-2.15). It means that health behavioral factors contribute to reduce the odds ratio.

After adjusting socio-demographic and health behavioral factors, women are associated with the poor self-rated health level(OR : 2.11, CI : 1.08-4.11). However, the other factors are not statistically significant in the model 2.

The model 3 were analyzed to find out the effect of medical needs factors for the association between type of household and poor self-rated health level. Diabetes variable was excluded from the model 3 because of its low frequency. The odds ratio(0.97, CI : 0.48-1.97) for the single-person households in the model 3 is almost same as the odds ratio(0.99, CI : 0.49-1.99) in the model 2. It indicates that the medical needs factors like hypertension diagnosis experiences and dissatisfaction of medical needs have low effects in the association between household type and poor self-rated health level in the 19-29 age group. However, the medical needs factors are strongly associated with poor self-rated health level.

To investigate the effects of social support factors in the 19-29 age group, the model 4 was analyzed with social support variables. Though the effects of social support variables in the model 4 are not big enough to be statistically significant, the odds ratio(0.90, CI : 0.43-1.85) for the single-person households in the model 4 is declined comparing to the odds ratio(0.97, CI : 0.48-1.97) in the model 3. It seems that social support factors in young age group have quiet big effect on the association between household type and poor self-rated health level.

Table 7. Results of multiple logistic regression analysis with selected variables for difference of self-rated health level between single-person households and non single-person households in the 19-29 age group

Variables	Model 1				Model 2				Model 3				Model 4			
	OR	95% CI			OR	95% CI			OR	95% CI			OR	95% CI		
Household																
Single	1.06	0.53	2.10		0.99	0.49	1.99		0.97	0.48	1.97		0.90	0.43	1.85	
Non single		1				1				1				1		
Gender																
Male		1				1				1				1		
Female	1.64	0.93	2.90	*	2.11	1.08	4.11	**	2.42	1.20	4.85	**	2.43	1.20	4.92	**
Household Income																
<150	0.62	0.28	1.37		0.61	0.28	1.35		0.51	0.23	1.14		0.50	0.22	1.13	*
150-299	0.87	0.44	1.74		0.88	0.44	1.76		0.79	0.39	1.60		0.76	0.37	1.55	
300≤		1				1				1				1		
Occupation§																
type 1		1				1				1				1		
type 2	0.84	0.40	1.74		0.77	0.37	1.63		0.77	0.36	1.63		0.75	0.35	1.61	
type 3	0.77	0.41	1.44		0.86	0.46	1.63		0.95	0.50	1.81		0.95	0.49	1.84	
Smoking																
No						1				1				1		
Yes					1.60	0.75	3.39		1.74	0.81	3.73		1.78	0.82	3.86	
Drinking																
Moderate drinker						1				1				1		
Never drinker					0.33	0.04	2.43		0.38	0.05	2.91		0.38	0.05	2.86	
High risk drinker					1.46	0.71	2.98		1.62	0.78	3.35		1.72	0.82	3.61	
Physical activity																
No					1.12	0.55	2.26		1.15	0.56	2.36		1.15	0.55	2.41	
Yes						1				1				1		

*: p<0.1, **: p<0.05, † : p<0.01

§ : Type 1 is composed of professions, administrative, office job

Type 2 is composed of sales, service, technician, operator, elementary worker, professional soldier

Type 3 is composed of student, housewife and unemployed

Table 7. (continued)

Variables	Model 1			Model 2			Model 3				Model 4			
	OR	95% CI		OR	95% CI		OR	95% CI			OR	95% CI		
Breakfast														
No				1.16	0.61	2.23	1.21	0.63	2.33		1.24	0.64	2.43	
<5 times a week				0.96	0.49	1.89	0.90	0.46	1.80		0.92	0.46	1.83	
5 times a week≤					1			1				1		
Hypertension														
No								1				1		
Yes							9.31	3.02	28.7	†	9.24	2.94	29.0	†
Dissatisfaction of Medical Needs														
No								1				1		
Yes							2.76	1.50	5.06	†	2.74	1.48	5.07	†
Contact with Family														
<once a week											0.67	0.38	1.18	
once a week≤												1		
Contact with Friends														
<once a week											1.01	0.50	2.04	
once a week≤												1		
Contact with neighbors														
<once a week											1.41	0.58	3.47	
once a week≤												1		
Religious activities														
No											0.70	0.37	1.35	
Yes												1		
Friendship activities														
No											1.16	0.64	2.10	
Yes												1		
Leisure activities														
No											0.95	0.51	1.74	
Yes												1		
charitable activities														
No											2.26	0.51	9.94	
Yes												1		
Hosmer & Lemeshow Goodness-of-Fit Test (P-value)		0.4013			0.9287			0.5578				0.4609		

*: p<0.1, **: p<0.05, † : p<0.01

<Table 8> indicates the results of the multiple logistic regression analysis in the 30-49 age group. The odds ratio(1.22, CI : 0.78-1.91) in the model 1 is same as the crude odds ratio(1.22, CI : 0.84-1.76) in <Table 5>. In the model 1, most variables are not statistically significant($p<0.05$) but Education and the occupation type 3 are associated with poor self-rated health level considerably. It seems that less-educated people and people who are not economically inactive tend to have the poor self-rated health level.

In the model 2, the odds ratio(1.19 CI : 0.76-1.87) is not so small comparing to the odds ratio(1.22, CI : 0.84-1.76) in the model 1. After adjusting socio-demographic and health behavioral factors, people who have never drunk alcohol are associated with the poor self-rated health level(OR : 1.74, CI : 1.19-2.56). However, the other health behavioral factors are not statistically significant in the model 2.

The model 3 were analyzed to investigate the effect of medical needs factors for the association between type of household and poor self-rated health level. The odds ratio(1.09, CI : 0.68-1.74) for the single-person households in the model 3 is decreased comparing to the crude odds ratio(1.22, CI : 0.84-1.76). It indicates that the medical needs factors are quiet strong in the association between household type and poor self-rated health level in the 30-49 age group. Also, the medical needs factors are strongly associated with poor self-rated health level.

In terms of the social support factors in the 30-49 age group, the model 4 was analyzed to explore the effects of social support factors. The participation in religious activities variable was excluded from the model 4 because of the model suitability. The odds ratio(1.07, CI : 0.67-1.72) is not so small comparing to the odds ratio(1.09, CI : 0.68-1.74) in the model 3. The social support factors are not statistically significant($p<0.1$) except for the participations in friendship and leisure activities.

Table 8. Results of multiple logistic regression analysis with selected variables for difference of self-rated health level between single-person households and non single-person households in the 30-49 age group

Variables	Model 1				Model 2				Model 3				Model 4			
	OR	95% CI			OR	95% CI			OR	95% CI			OR	95% CI		
Household																
Single	1.22	0.78	1.91		1.19	0.76	1.87		1.09	0.68	1.74		1.07	0.67	1.72	
Non single		1				1				1				1		
Gender																
Male		1				1				1				1		
Female	0.85	0.64	1.12		0.91	0.65	1.27		0.95	0.67	1.34		0.98	0.69	1.39	
Household Income																
<150	1.43	0.98	2.09	*	1.40	0.96	2.04	*	1.26	0.86	1.86		1.16	0.79	1.72	
150-299	0.84	0.59	1.19		0.85	0.60	1.21		0.84	0.59	1.20		0.81	0.57	1.16	
300≤		1				1				1				1		
Marital Status																
Single		1				1				1				1		
Married	0.82	0.57	1.17		0.84	0.59	1.21		0.73	0.50	1.05	*	0.74	0.51	1.09	
Widowed Divorced Separated	1.15	0.73	1.79		1.17	0.75	1.83		0.92	0.58	1.47		0.92	0.58	1.48	
Education																
≤Middle	3.42	2.19	5.36	†	3.32	2.11	5.21	†	3.02	1.88	4.84	†	2.81	1.74	4.54	†
High	1.61	1.21	2.15	†	1.59	1.19	2.12	†	1.57	1.17	2.12	†	1.52	1.13	2.06	†
College≤		1				1				1				1		
Occupation§																
type 1		1				1				1				1		
type 2	0.84	0.60	1.18		0.85	0.60	1.19		0.82	0.58	1.16		0.82	0.58	1.17	
type 3	2.23	1.60	3.11	†	2.20	1.57	3.08	†	2.30	1.62	3.25	†	2.32	1.63	3.31	†
Smoking																
No						1				1				1		
Yes					1.17	0.83	1.64		1.23	0.87	1.74		1.24	0.87	1.76	
Drinking																
Moderate drinker						1				1				1		
Never drinker					1.74	1.19	2.56	†	1.78	1.19	2.68	†	1.71	1.13	2.58	**
High risk drinker					1.12	0.79	1.59		1.00	0.70	1.43		1.05	0.73	1.51	

*: $p<0.1$, **: $p<0.05$, † : $p<0.01$

§ : Type 1 is composed of professions, administrative, office job

Type 2 is composed of sales, service, technician, operator, elementary worker, professional soldier

Type 3 is composed of student, housewife and unemployed

Table 8. (continued)

Variables	Model 1			Model 2			Model 3				Model 4			
	OR	95% CI		OR	95% CI		OR	95% CI			OR	95% CI		
Physical activity														
No				0.99	0.71	1.37	1.00	0.72	1.40		0.91	0.65	1.29	
Yes					1			1				1		
Breakfast														
No				1.05	0.75	1.46	1.02	0.72	1.44		0.96	0.67	1.36	
<5 times a week				1.24	0.91	1.69	1.21	0.88	1.67		1.21	0.88	1.67	
5 times a week≤					1			1				1		
Hypertension														
No								1				1		
Yes							2.95	2.02	4.32	†	2.97	2.03	4.35	†
Diabetes														
No								1						
Yes							5.55	3.32	9.26	†	5.59	3.33	9.39	†
Dissatisfaction of Medical Needs														
No								1				1		
Yes							3.29	2.51	4.32	†	3.24	2.46	4.25	†
Contact with Family														
<once a week											1.04	0.80	1.35	
once a week≤												1		
Contact with Friends														
<once a week											1.16	0.89	1.51	
once a week≤												1		
Contact with neighbors														
<once a week											1.17	0.88	1.56	
once a week≤												1		
Friendship activities														
No											1.27	0.97	1.67	*
Yes												1		
Leisure activities														
No											1.35	1.00	1.83	*
Yes												1		
charitable activities														
No											0.95	0.58	1.54	
Yes												1		
Hosmer & Lemeshow Goodness-of-Fit Test (P-value)		0.3032			0.7449			0.2725				0.1237		

*: p<0.1, **: p<0.05, † : p<0.01

<Table 9> shows the results of the multiple logistic regression analysis in the 50-64 age group. For the 50-64 age group analysis, physical activity and participation in friendship activities were excluded from the models because of their low effects and the model suitability. In the model 1, the adjusted odds ratio(1.46, CI : 1.06-2.02) is decreased comparing to the crude odds ratio(1.64, CI : 1.21-2.22). Therefore, socio-demographic factors in the 50-64 age group is strong in the association between type of household and poor self-rated health level. Also, the odds ratio for the single-person households is statistically significant($p<0.05$).

To figure out the effect of marital status in the 50-64 age group, the marital status variable is added in the model 2. The odds ratio(1.07, CI : 0.71-1.60) is dramatically decreased comparing to the crude odds ratio(1.64, CI : 1.21-2.22) and the odds ratio(1.46, CI : 1.06-2.02) in the model 1. Although the difference in the marital status type is not highly associated with poor self-rated health level, the marital status have strong effect on the association between type of household and poor self-rated health level.

The model 3 were analyzed to find out the effect of health behavior and medical needs factors for the association between type of household and poor self-rated health level. The model with socio-demographic and health behavior factors is not presented in <Table 9> because its pattern and the odds

ratio(OR : 1.08, CI : 0.72-1.63) for the single-person households are similar to the model 2 and 3. The odds ratio(1.00, CI : 0.65-1.53) for the single-person households in the model 3 is decreased comparing to the odds ratio(1.07, CI : 0.71-1.60) in the model 2. It indicates that the medical needs factors have quite big effect on the association between household type and poor self-rated health level in the 50-64 age group. Also, the medical needs factors are associated with poor self-rated health level significantly.

In the model 4, social support factors are included to investigate the effects of social support factors in the 50-64 age group. The odds ratio(1.04, CI : 0.68-1.61) for the single-person households in the model 4 is slightly increased comparing to the odds ratio(1.00, CI : 0.65-1.53) in the model 3. Although the effects of social support factors on the association between household type and poor self-rated health level are not so great, it seems that social support factors in old age group play a role as improving self-rated health level. In addition, the effects of social support variables in the model 4 are not big enough to be statistically significant except the participation in leisure activities(OR : 1.70, CI : 1.29-2.25).

Table 9. Results of multiple logistic regression analysis with selected variables for difference of self-rated health level between single-person households and non single-person households in the 50-64 age group

Variables	Model 1				Model 2				Model 3				Model 4			
	OR	95% CI			OR	95% CI			OR	95% CI			OR	95% CI		
Household																
Single	1.46	1.06	2.02	**	1.07	0.71	1.60		1.00	0.65	1.53		1.04	0.68	1.61	
Non single		1				1				1				1		
Gender																
Male		1				1				1						
Female	1.10	0.85	1.43		1.05	0.81	1.38		1.06	0.76	1.47		1.03	0.74	1.44	
Household Income																
<150	1.78	1.20	2.65	†	1.73	1.17	2.58	†	1.53	1.01	2.30	**	1.39	0.92	2.10	
150-299	0.87	0.58	1.31		0.86	0.57	1.30		0.83	0.54	1.27		0.79	0.51	1.21	
300≤		1				1				1				1		
Education																
≤Middle	2.50	1.70	3.68	†	2.53	1.72	3.72	†	2.17	1.45	3.23	†	2.01	1.33	3.01	†
High	1.58	1.08	2.31	**	1.58	1.08	2.31	**	1.50	1.01	2.22	**	1.43	0.96	2.12	*
College≤		1				1				1				1		
Occupation§																
type 1		1				1				1				1		
type 2	0.97	0.63	1.51		0.98	0.63	1.52		1.03	0.65	1.61		0.99	0.63	1.56	
type 3	2.12	1.38	3.27	†	2.18	1.41	3.36	†	2.24	1.44	3.49	†	2.28	1.45	3.57	†
Marital Status																
Single						1				1				1		
Married					0.63	0.34	1.19		0.58	0.30	1.13		0.62	0.32	1.22	
Widowed Divorced Separated					0.92	0.50	1.71		0.78	0.41	1.49		0.82	0.42	1.57	
Smoking																
No										1				1		
Yes									1.05	0.71	1.55		0.99	0.67	1.48	
Drinking																
Moderate drinker										1				1		
Never drinker									1.36	1.04	1.78	**	1.25	0.95	1.66	*
High risk drinker									0.93	0.61	1.42		0.97	0.63	1.48	

*: p<0.1, **: p<0.05, † : p<0.01

§ : Type 1 is composed of professions, administrative, office job

Type 2 is composed of sales, service, technician, operator, elementary worker, professional soldier

Type 3 is composed of student, housewife and unemployed

Table 9. (continued)

Variables	Model 1			Model 2			Model 3				Model 4			
	OR	95% CI		OR	95% CI		OR	95% CI			OR	95% CI		
Breakfast														
No							0.98	0.64	1.50		0.94	0.61	1.46	
<5 times a week							1.11	0.74	1.66		1.08	0.71	1.62	
5 times a week≤								1				1		
Hypertension														
No								1				1		
Yes							1.80	1.42	2.27	†	1.77	1.40	2.24	†
Diabetes														
No								1						
Yes							3.33	2.46	4.50	†	3.35	2.47	4.54	†
Dissatisfaction of Medical Needs														
No								1				1		
Yes							2.16	1.63	2.86	†	2.04	1.53	2.71	†
Contact with family														
<once a week											0.86	0.68	1.09	
once a week≤												1		
Contact with Friends														
<once a week											1.10	0.87	1.40	
once a week≤												1		
Contact with neighbors														
<once a week											1.15	0.90	1.46	
once a week≤												1		
Religious activities														
No											0.92	0.72	1.17	
Yes												1		
Friendship activities														
No											1.05	0.82	1.35	
Yes												1		
Leisure activities														
No											1.70	1.29	2.25	†
Yes												1		
charitable activities														
No											1.15	0.77	1.73	
Yes												1		
Hosmer & Lemeshow Goodness-of-Fit Test (P-value)	0.4902			0.3651			0.8858				0.5554			

*: p<0.1, **: p<0.05, † : p<0.01

Ⅳ. Discussion and Conclusion

1. Interpretation of the results

This study aimed to identify the characteristics related socio-demographic factors, health behaviors, medical needs, social support factors(social network and social participation) of the single-person households and the non single-households. Thus, the descriptive statistics was carried out.

In the study population, subjects who are single-person households tend to be young age(19-29), high household income earners, well-educated people and more engaged in profession, administrative and office job comparing to the non single-person households. In terms of marital status, single-person households consisted of mainly single and widowed, divorced, separated people.

In the results of the age groups, the single-person households in young(19-29) age group tend to be men, single, well-educated (≤College), more engaged in the type 1 job(professions, administrative and office job) comparing to the non single-person households. As for the single-person households in the 30-49 age group, they are more like to be men, high household income earner, single, well-educated, more engaged in the type 1 job comparing to the non single-person households. According to the

50-64 age group, the single-person households consist of more women, low household income earners, widowed, divorced, separated, less-educated(≤middle), and more engaged in the type 2 job(sales, service, technician, operator, elementary worker, professional soldier) comparing to the non single-person households. The distinctive differences between the age groups of the single-person households are the household income, marital status and occupation type. In terms of the household income, the proportion of the single-person households with high household income is the highest in the 30-49 age group and the proportion of the single-person households with low household income earners is the lowest in the 50-64 age group. As to the marital status, the proportion of the single-person households who are widowed, divorced, separated is increased with age. It can demonstrate the pathway of being single-person households(Byun et al., 2009 & Jung et al., 2012). For the occupation type, the proportion of the type 1 job is the highest in the 30-49 age group and the lowest in the 50-64 age group. And, the proportion of the type 3 job(student, housewife, unemployed) is the highest in the 50-64 age group and the lowest in the 30-49 age group.

As for the health behaviors, the 19-29 aged single-person households tend to be smoker, high risk drinker and skip breakfast. The 30-49 aged single-person households are the most vulnerable to the health behaviors among the age groups of the single-person households, except physical activity. Especially, the

proportion(44.9%) of the single-person households who are smoker is almost double the proportion(25.1%) of the non single-person households. In addition, the proportion of skipping breakfast in the single-person households(38.4%) is more than two times higher than the result of the non single-person households(16.5%). As a result, they are more likely to have bad health behavior comparing to the non single-person households.

As for the medical needs factors, the experiences of diagnosis for the chronic disease(hypertension and diabetes) is not so different between single-person households and non single-person households except the 50-64 age group. However, in terms of the dissatisfaction of medical needs and the self-rated health level, the single-person households show negative results in all age groups. Especially, the 50-64 aged single-person households are more difficult to see the doctors even though they feel the necessity for going to the hospitals comparing to the other age groups of the single-person households. It is said that the dissatisfaction of medical needs are highly associated with householder's self-rated health level and household income(shin et al., 2009).

According to the social support factors, the single-person households have frequent contacts with family and friends except neighbors. However, in terms of frequent contacts with family, only the 19-29 aged single-person households have almost double proportion(60.4%) of frequent contact with family than the non

single-person households(35.6%). In terms of frequent contact with neighbors, only the 50-64 aged single-person households(53.6%) have higher proportions than the non single-person households(49.7%). It is likely to say that people who are young and single-person household tend to have more frequent contact with family and people who are middle-aged and single-person household tend to have more frequent contact with friends, lastly the people who are old and single-person household tend to have more frequent contact with neighbors. Frequent contacts with family, friends and neighbors can be complementary method for substituting for supports from family comparing to non single-person households living with their family.

As to the social participation, the single-person households have more take part in friendship and leisure activities than the non single-person households. However, in terms of friendship activities, only the middle-aged single-person households are less likely to take part in that activities than the non single-person households.

To investigate the association between households type and self-rated health level, the univariate and multiple logistic regression analysis was carried out to get crude and adjusted odds ratios. The odds ratio for the poor self-rated health level in the single-person households was statistically significant(OR : 1.27, CI : 1.03-1.57). It demonstrates that the households type is

associated with poor self-rated health level. The crude odds ratios for each age group are increased with age and the crude odds ratio for the 50-64 age group represents the highest odds ratio(1.64, CI : 1.21-2.22). It is said that age play a role of effect modifier in the association between household type and self-rated health level.

In the result of the multiple logistic regression for total subjects, old age, low education level, economically inactive status, never drinking alcohol, experience of diagnosis with hypertension and diabetes, dissatisfaction of medical needs and lack of regular leisure activities are significantly associated with higher risk of the poor self-rated health level($p<0.05$). In the results of the 19-29 age group, women, experience of diagnosis with hypertension, and dissatisfaction of medical needs are associated with poor self-rated health level considerably. In addition, as for the 30-49 age group, low education level, economically inactive status, never drinking alcohol, experience of diagnosis with hypertension and diabetes, dissatisfaction of medical needs and lack of regular friendship and leisure activities are associated with higher risk of the poor self-rated health level Lastly, in terms of the 50-64 age group, low education level, economically inactive status, experience of diagnosis with hypertension and diabetes, dissatisfaction of medical needs and lack of regular leisure activities are noticeably associated with higher risk of the poor self-rated health level. Social network factors(contact with family, friends and neighbors) are not

associated with poor self-rated health significantly after adjusting other factors. Also, the participation in religious and charitable activities have low effects on the association with poor self-rated health level. The effects of households type are not statistically significant in the final models after adjusting other factors. It represents that the features of household members like age, education, occupation, drinking etc can effect on the poor self-rated health level. Therefore, after adjusting these factors, effect of household type is disappeared.

To explore the reason why the effects of household type are disappeared in the model for each age group, as for the 19-29 age group, adjusting the health behavioral and social support variables have an effect on decreasing the odds ratio for the single-person households. And, in the 30-49 age group, controlling the experience of diagnosis with chronic disease and dissatisfaction of medical needs is significant to make the effect of household type disappear. In addition, for the 50-64 age group, after adjusting socio-demographic factors, the odds ratio of the single-person households is dramatically decreased. Above all, the factors in the single-person households can attribute to the poor self-rated health level are different in each age group. Therefore, the health policies for the single-person households have to be different for specific target age group. For instance, to improve health level of the single-person households, interventions for health behaviors will be effective in the 19-29 age group. Also, the management of chronic disease and interventions for

preventing chronic diseases will have effect on improvement of health level of the 30-49 age group. In addition, for the 50-64 age group, focused interventions for low household income earner and less-educated will work for enhancing single-person households' health level.

2. Limitations

As to the limitations of this study, at first, the study was cross-sectional study that can not figure out the causality in the association between household type and self-rated health level. The results of analysis for detecting potential confounders were not clearly distinguishable. Secondly, social support variables were not strong enough to investigate the effects of social support factors for the association with poor self-rated health level. Because the variables were not specific enough to distinguish whether subjects had low level of social support or not accurately. For example, frequency of contact with family contained only contact with family not living with subjects so, its effect could not be measured properly in the non single-person households. Thirdly, there could be other factors have effect on the self-rated health level by household type. The questionnaire was limited to figure out all the factors affects self-rated health level.

3. Conclusion

The results of the study reached the certain conclusion that there are meaningful association between household type and self-rated health, and various factors such as socio-demographic, health behavior, medical needs, social support have effect on the difference of self-rated health level between single-person households and non single-person households.

Most powerful factors effects on the association are socio-demographic factors such as age, education, occupation. In addition, experiences of chronic diseases diagnosis and dissatisfied medical needs are also strong risk factors for the poor self-rated health level. In spite of the limitation about social support factors, some factors showed strong effect with the poor self-rated health level such as the participation in friendship and leisure activities.

This study has implications that paid attention to the young adults and middle-aged adults who are single-person households in Seoul rather than elderly people living alone. Because this population can remain as the single-person households in the future, health policies for the population should be designed to deal with health problems caused by single-person households. Therefore, this study contributes to build the baseline data for the proper health policies targeting single-person households.

References

Atoh, M. (2008). “Family Changes in the Context of Lowest-Low Fertility: The Case of Japan.” International Journal of Japanese Sociology 17: 14-29.

Chen, Y., et al. (2014). "Quality of life and related factors: a questionnaire survey of older people living alone in Mainland China." Qual Life Res 23(5): 1593-1602.

Chen, Y., et al. (2014). "Self-rated health and associated factors among older people living alone in Shanghai." Geriatr Gerontol Int.

Choi (2008). “The effect economic status, health status, and social support on the depression of the elderly living alone” Social science research review 24(4) : 103-123.

Grav, S., et al. (2013). "Association of personality, neighbourhood, and civic participation with the level of perceived social support: the HUNT study, a cross-sectional survey." Scand J Public Health 41(6): 579-586.

Lee EM (2013). “Characteristics and Implications of Single-person Households” SERI Quarterly 6(4): 98-103.

Lee, J.-H., et al. (2011). "The Influence of Individual-Level Social

Capital on Depression." Journal of agricultural medicine and community health 36(2): 73-86.

Lin, P. C. and H. H. Wang (2011). "Factors associated with depressive symptoms among older adults living alone: an analysis of sex difference." Aging Ment Health 15(8): 1038-1044.

Sereny, M. D. and D. Gu (2011). "Living arrangement concordance and its association with self-rated health among institutionalized and community-residing older adults in China." J Cross Cult Gerontol 26(3): 239-259.

Sun, W., et al. (2007). "Factors associated with good self-rated health of non-disabled elderly living alone in Japan: a cross-sectional study." BMC Public Health 7: 297.

Wang, H., et al. (2013). "Associations and impact factors between living arrangements and functional disability among older Chinese adults." PLoS One 8(1): e53879.

고영미 외 (2013) “일반 독거노인과 저소득 독거노인간의 주관적 건강에 미치는 영향요인 차이 : 서울시 일개 지역을 중심으로” 한국보건교육ㆍ건강증진학회, 30(2).

김옥연 외 (2009). “1인가구 주거실태 분석 - 서울시 1인가구를 중심으로 - ” 한국주거환경학회지, 7(2).

김재익 (2013). “1인가구의 생애주기별 이질성과 공간적 분포특성” 주택연구, 21(3) : 61-78.

김혜영 (2007). “1인 가구의 비혼 사유와 가족의식” 한국사회학회 사회학대회 논문집.

박수잔 외 (2011). “사회적 관계망의 긍정적, 부정적 기능이 성별 주관적 건강에 미치는 영향” 한국보건교육 · 건강증진학회, 28(4).

반정호 (2012). “1인 가구의 사회·경제적 특성과 변화” 한국노동연구원, 월간 노동리뷰 4월호.

변미리 외 (2008). “서울의 1인가구 증가와 도시정책 수요연구” 서울시정개발연구원.

변미리 외 (2009). “1인가구, 서울을 변화시킨다” 서울시정개발연구원.

신상영 (2010). “1인가구 주거지의 공간적 분포에 관한 연구 : 서울시를 사례로” 대한국토·도시계획학회지, 45(4).

신영전 외 (2009). “미 충족의료의 현황과 관련요인 - 1차, 2차 한국복지패널자료를 이용하여 -” 보건사회연구, 29(1): 111-142.

이진향 외 (2011). “개인수준의 사회적 자본이 우울증에 미치는 영향” 한국농촌의학 · 지역보건학회, 36(2):73-86.

이희연 외 (2011). “1인 가구의 인구・경제・사회학적 특성에 따른 성장패턴과 공간분포” 대한지리학회지, 46(4).

정경희 외 (2012). “가족구보 변화와 정책적 함의 : 1인가구 증가현상과 생활실태를 중심으로” 한국보건사회연구원.

한지희 외 (2011). “1인가구의 인구통계학적 특성과 주거실태 분석 - 「2010 인구주택총조사」를 바탕으로-” 대한건축학회 추계학술발표대회 논문집, 31(2).

국문초록

서울시 거주 1인가구와 다인가구의 주관적 건강수준의 차이

차미란
보건학과 역학전공
서울대학교 보건대학원
Seoul National University

연구배경 및 목적 : 우리나라는 1960년대 이후 산업화와 도시화를 이루며 경제발전을 하였고, 그 결과 전통적인 대가족중심 사회에서 핵가족중심 사회로 전환되었다. 이러한 핵가족화와 더불어 국민들의 교육수준의 향상, 여성의 사회활동의 증가, 미혼, 만혼의 증가로 인하여 평균 초혼연령이 증가하고, 출산율이 저하되어 가구당 평균가구원 수가 점점 적어지고 있으며, 또한 1인가구의 비율도 함께 증가하고 있다. 특히, 서울의 경우 1인가구의 비율의 증가폭이 크며, 2030년도에는 전체 가구유형에 대한 1인가구의 비율이 30.1%에 달할 것으로 보인다(통계청, 2010). 또한 서울시 1인가구의 큰 비중을 차지하고 있는 연령층은 65세 미만 청장년층이며, 이 청장년층 1인가구들은 1인가구가 된 배경이 서로 다르기 때문에 주관적 건강수준과 이에 영향을 끼치는 요인들이 서로 다를 것

이다. 이에 본 연구는 서울시에 거주하고 있는 1인가구와 다인가구의 주관적 건강수준의 차이를 분석하고 가구유형에 따른 주관적 건강수준의 차이에 영향을 주는 있는 요인들에 대해 연령군별로 알아보고자 하였다.

연구 방법 : 2011년도 지역사회건강조사 자료를 이용하여 서울시에 거주하고 있는 19-64세 성인 8,565명을 대상으로 하였다. 1인가구와 다인가구의 비교성을 높이기 위하여 조사대상 가구 당 가구원을 1명씩 랜덤하게 추출하여 연구대상으로 하였으며, 이 중 1인가구는 997명, 다인가구는 7,568명이었다. 모든 변수들은 지역사회건강조사문항에서 추출하여 분석하였으며, 가구유형, 사회 인구학적 특성, 건강행태, 의료이용수요, 사회적지지 변수들을 독립변수로 이용하였다. 1인가구의 다인가구의 주관적 건강수준의 차이와 그 차이에 영향을 끼치는 요인에 대해 알아보기 위하여 기술통계와 로지스틱 회귀분석을 시행하였으며 연령군별 영향 요인들의 차이를 살펴보고자, 연구대상을 각각 19-29세, 30-49세, 50-64세의 연령군으로 층화하여 분석하였다. 모든 통계분석은 SAS 9.4를 이용하여 분석하였다.

연구 결과 : 가구유형에 따른 낮은 주관적 건강수준의 위험성을 보기 위하여 로지스틱 회귀분석 결과, 1인가구인 경우 다인가구에 비해 통계적으로 유의하게 낮은 주관적 건강수준과 연관이 있었다(OR : 1.27, CI : 1.03-1.57). 그리고 3개의 연령군별 가구유형과 낮은 주관적 건강수준의 연관성에 대해 분석한 결과, 50-64세 연령군에서만 통계적으로 유의한 연관성(OR : 1.64, CI : 1.21-2.22)을 보였다. 가구유형에 따른 주관적 건강수준에 영향을 미치는 요인에 대해 탐색하기 위하여 다변량 로지스틱 회귀분석을 한 결과,

나이가 많을수록, 가구소득이 낮을수록, 교육수준이 낮을수록, 직업을 갖고 있지 않을 경우, 평생 술을 한 번도 마시지 않은 경우, 고혈압과 당뇨병 진단을 받은 경험과 미충족 의료수요 경험이 있는 경우, 정기적인 취미/레저활동에 참여하지 않는 경우에 낮은 주관적 건강수준과 연관성이 높았으며, 가족, 친구, 이웃과의 연락빈도는 다른 변수들을 보정하였을 때 주관적 건강수준과 통계적으로 유의하지 않았다. 또한 연령군별로 분석해보았을 때, 각 연령별로 주관적 건강수준과 관련성이 높은 변수들이 서로 달랐으며, 19-29세의 경우에는 성별과 의료수요(당뇨진단경험, 미충족 의료수요경험), 30-49세에서는 교육수준, 직업, 음주, 의료수요(당뇨 및 교혈압 진단경험, 미충족 의료수요경험), 친목활동 또는 취미/레저활동 참여, 50-64세에서는 교육수준, 직업, 음주, 의료수요(당뇨 및 교혈압 진단경험, 미충족 의료수요경험) 및 취미/레저활동의 참여가 주관적 건강수준과 유의미하게 연관이 있었다. 가구유형의 차이에 따른 주관적 건강수준의 위험성의 경우에는 다른 변수들을 보정한 로지스틱 회귀분석 모델에서 모든 연령군의 결과가 통계적으로 유의하게 나타나지 않았다.

결론 : 1인가구와 다인가구 간의 주관적 건강수준의 차이가 통계적으로 유의하게 있었고, 연령별로 보았을 때는 50-64세 연령군에서 1인가구의 낮은 주관적 건강수준의 위험성이 통계적으로 유의하게 나타났다. 그러나 다른 사회경제적 변수, 건강행태, 의료수요, 사회적지지 변수들을 보정한 결과에서는 낮은 주관적 건강수준에 대한 1인가구의 위험성이 사라져, 가구유형과 주관적 건강수준의 연관성은 결과적으로는 사회경제적 수준이나 의료수요, 사회참여 여부 등의 영향으로 기인한 것으로 나타났다. 연령군별로 가구유형 차이에 따른 주관적 건강수준의 차이를 일으키는 요인들이 각

각 달랐으며, 19-29세의 경우에는 주로 건강행태, 30-49세의 경우에는 의료수요, 50-64세의 경우에는 사회 인구학적 요인들이 해당 연령대의 1인가구의 주관적 건강수준에 큰 영향을 끼치는 것으로 나타났다. 따라서 1인가구에 대한 건강중재전략을 기획할 때 이러한 점을 주목하여 기획한다면 각 연령별로 좀 더 효과적인 건강정책을 만들어낼 수 있을 것이다. 본 연구는 서울시에 거주하고 있는 청장년 1인가구의 주관적 건강수준을 다인가구와 비교함으로써, 앞으로도 계속 증가하게 될 1인가구의 특성에 맞는 보건정책과 중재전략을 세우는데 필요한 초석을 다치는 역할을 하였다고 볼 수 있겠다.

.....

주요어 : 1인가구, 주관적 건강수준, 가구유형

학 번 : 2013-21875